Appl. No.   09/917,522

<u>In the Claims</u>

1.   (currently amended)   A method, comprising:
    detecting whether a floppy disk operation is a write;
and,
    masking DMA requests from at least one DMA channel during
said write thereby preventing data corruption, <u>wherein said at</u>
<u>least one DMA channel has a higher priority than a DMA channel</u>
<u>associated with said floppy disk operation</u>.

2.   (original)   The method of claim 1, wherein said masking
DMA requests is only during a portion of said write.

3.   (original)   The method of claim 1, wherein said masking
DMA requests is during all of said write.

4.   (original)   The method of claim 1, wherein said detecting
and said masking is accomplished by said floppy disk driver
routine.

5.   (cancelled)

6.   (original)   The method of claim 1, comprising:
providing a timer interrupt service routine that accomplishes
said masking.

7.   (original)   The method of claim 6, comprising:
reprogramming a timer to interrupt at a more rapid rate.

8.   (original)   The method of claim 6, comprising:
    reading a DMA byte count.

9.   (original)   The method of claim 8, comprising:

2

Appl. No. 09/917,522

accomplishing said masking after said DMA byte count reaches a threshold.

10. (original) The method of claim 8, comprising:
estimating when said write will complete from said DMA
5 byte count.

11. (original) The method of claim 10, wherein said estimating includes a linear interpolation.

12. (original) The method of claim 10, wherein said estimating includes a least squares fit method.

10 13. (original) The method of claim 10, wherein said estimating includes a polynomial fit method.

14. (original) The method of claim 10, comprising:
determining a time to accomplish said masking based upon a result of said step of estimating.

15. 15. (currently amended) An apparatus, comprising:
a floppy disk controller receiving data via DMA accesses under the control of a DMA controller wherein said DMA controller ignores at least one DMA request line when an underrun error may occur, wherein said at least one DMA
20 request line has a higher priority than a DMA request line associated with said floppy disk controller.

16. (original) The apparatus of claim 15 wherein said DMA controller ignores said at least one DMA request line for a transfer of data comprising a whole sector.

25 17. (original) The apparatus of claim 15 wherein said DMA

3

Appl. No.   09/917,522

controller ignores said at least one DMA request line for a
transfer of data comprising less than a whole sector.

18.   (original) The apparatus of claim 15 wherein said DMA
controller ignores said at least one DMA request line after a
5   threshold number of bytes have been transferred.

19.   (original) The apparatus of claim 15 wherein said DMA
controller ignores said at least one DMA request line after a
first time period has elapsed.

20.   (original) The apparatus of claim 15 wherein said DMA
10   controller ignores said at least one DMA request line a second
time period before a transfer of a last byte.

21.   (original) The apparatus of claim 20 wherein said second
time period is based upon an estimate of when said transfer of
said last byte will occur.

15   22.   (original) The apparatus of claim 21 wherein said
estimate is derived by monitoring a DMA byte count.

23.   (original) The apparatus of claim 21 wherein said
estimate is derived by monitoring a system clock.

24.   (original) The apparatus of claim 21 wherein said
20   estimate is based upon samples taken of a DMA byte count and a
system clock.

25.   (original) The apparatus of claim 24 wherein said
samples are interpolated linearly to produce said estimate.

26.   (original) The apparatus of claim 24 wherein said

4

Appl. No.   09/917,522

samples are input to a least squares fit process to produce said estimate.

27.   (original) The apparatus of claim 24 wherein said samples are input to a polynomial curve fitting process to
5   produce said estimate.

28.   (previously amended) An apparatus, comprising:
        a DMA controller in communication with a floppy disk controller; and,
        means for masking at least one DMA request line when a
10   DMA underrun may occur due to an improperly designed floppy disk controller, wherein said at least one DMA request line has a higher priority than a DMA request line associated with said floppy disk controller.

29.   (original) The apparatus of claim 28 wherein said at
15   least one DMA request line is masked based upon an estimate generated by a means for estimating.

30.   (original) The apparatus of claim 29 wherein said means for estimating includes means for linear interpolation.

31.   (original) The apparatus of claim 29 wherein said means
20   for estimating includes means for performing a least squares fit analysis.

32.   (original) The apparatus of claim 29 wherein said means for estimating includes means for performing a polynomial fit analysis.

25   33.   (currently amended) A program storage medium readable by a computer, tangibly embodying a program of instructions

5

Appl. No.   09/917,522

executable by a computer to perform method steps, said method
steps comprising:
        detecting whether a floppy disk operation is a write;
and, masking DMA requests from at least one DMA channel during
5   said write thereby preventing data corruption, wherein said at
least one DMA channel has a higher priority than a DMA channel
associated with said floppy disk operation.

34.   (original) The program storage medium of claim 33,
wherein said masking DMA requests is only during a portion of
10   said write.

35.   (original) The program storage medium of claim 33,
wherein said masking DMA requests is during all of said write.

36.   (original) The program storage medium of claim 33,
wherein said detecting and said masking is accomplished by
15   said floppy disk driver routine.

37.   (cancelled)

38.   (original) The program storage medium of claim 33,
comprising:
        providing a timer interrupt service routine that
20   accomplishes said masking.

39.   (original) The program storage medium of claim 38,
comprising:
        reprogramming a timer to interrupt at a more rapid rate.

40.   (original) The program storage medium of claim 38,
25   comprising: reading a DMA byte count.

6

Appl. No. 09/917,522

41. (original) The program storage medium of claim 40, comprising:

accomplishing said masking after said DMA byte count reaches a threshold.

5   42. (original) The program storage medium of claim 40, comprising:

estimating when said write will complete from said DMA byte count.

43. (original) The program storage medium of claim 42,
10   wherein said estimating includes a linear interpolation.

44. (original) The program storage medium of claim 42, wherein said estimating includes a least squares fit method.

45. (original) The program storage medium of claim 42, wherein said estimating includes a polynomial fit method.

15   46. (original) The program storage medium of claim 42, comprising:

determining a time to accomplish said masking based upon a result of said step of estimating.

7